

## Qualified Rigger & Signal Person Syllabus

**Time:** 8 hours

**Maximum Class Size:** 12

**Prerequisites:** None

**Course Description:** Working safely, effectively and efficiently is the primary focus of this eight-hour course. Many types of construction jobs involve working with cranes to hoist loads. This work is dangerous and mistakes can cause serious accidents or even fatalities. Crane operators, riggers and laborers all need to follow safe work practices, including using equipment properly. In this course the participant will learn safe work practices around cranes, rigging loads, and proper hand signaling. The participants will also identify slings, hooks, shackles, and turnbuckles. They will learn how to inspect rigging hardware, give clean hand signals, calculate basic load weights, find sling angles and figure sling tension. Ample time will be given for hands-on practice of all hand signals.

### Goals/Objectives/Student Learning Outcomes:

- Identify slings
- Identify hooks
- Identify shackles
- Give clear hand signals
- Inspect rigging hardware
- Calculate basic load weights
- Find sling angles
- Figure sling tensions
- Complete the Qualified Rigger & Signal Person Exit Exam with a score of 80% or above.

### Standards

- |                   |                               |
|-------------------|-------------------------------|
| • 29CFR 1926.1401 | Definitions                   |
| • 29CFR 1926.1404 | Assembly, Disassembly         |
| • 29CFR 1926.1419 | Signals: General requirements |
| • 29CFR 1926.1425 | Keeping clear of the load     |
| • 29CFR 1926.1428 | Signal Person Qualifications  |
| • 29CFR 1910.184  | Slings                        |
| • ASME B30.26     | Rigging Hardware              |
| • ASME B30.9      | Slings                        |

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### Classroom Rules and Procedures

- All classes begin at 6:30 am and end at 3:00 pm
- Upon entering classroom, all participants must sign in and be seated by 6:30 am
- Class will consist of a combination of lecture, video, demonstration, coached group exercises, individual exercises and assessment.
- Students are required to report to class ready to work and maintain the provided PPE

### Textbooks/Readings/Materials

- *LIUNA Rigging Hardware & Slings IG/PG*
- *LIUNA Subparts H & N Materials Handling & Cranes IG/PG*
- *LIUNA DVD: Hoisting & Rigging Procedures*
- *LIUNA PowerPoint: Hoisting & Rigging*
- Handouts: Sling Safety, Standard Hand Signals for Controlling Crane Operations
- Classroom materials: Computer, projector, calculators, paper, pencils, pens, dry erase markers, highlighters, flip chart

### Tools/Equipment/Other Materials

- slings
- shackles,
- hooks
- turnbuckles
- other rigging hardware needed for exercises

### Personal Protective Equipment

- 12 pairs of gloves
- 12 pairs of Safety Glasses
- 20 pairs of Ear plugs
- 12 hard hats

### Course Requirements

To receive credit for the course, participants must:

- Be present for full eight hours
- Participate in all classroom exercises
- Pass a written exam
- Pass a hands-on exam

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### Course Policies

- Participants must be on-time and ready to work.
- Participants must return from breaks on-time.
- Participants must participate in each exercise and assignment
- Participants who are on “light duty” are not allowed to take this course due to the physically demanding requirements.

### Assessment and Grading

Participants will be assessed on the following:

- All written exams must be passed with a score of 80% or above.
- All hands-on exercises are graded on performance and participation. They are pass/fail and must be passed with a score of 80% or above.

### Safety

Failure to maintain and use PPE may result in dismissal from the course.